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## BIOGRAPHICAL

### MRS. A. A. SIMPSON.

The subject of this sketch is a resident of Greene county, Pennsylvania. She began to keep bees in 1887—just 10 years ago—with 7 colonies of natives in box-hives. These she transferred to Simplicity hives, and then Italianized them. She has been very successful so far, and now has 60 colonies in chaff hives.

Mrs. Simpson commenced to ship bees and queens in 1889. She says it took her a whole season to learn how to rear queens, after reading all she could find on the subject; and that one must have experience to know how to manage bees.

Later on, Mrs. S. added fancy poultry to her bee-business, and now keeps three kinds—Barred and White Plymouth Rock, and Silver-Laced Wyandotte. This works in nicely with bee-culture, as many others have proven to their profit.



Mrs. A. A. Simpson.

Her chicks, she says, are all pets, and as fine as one can find any place.

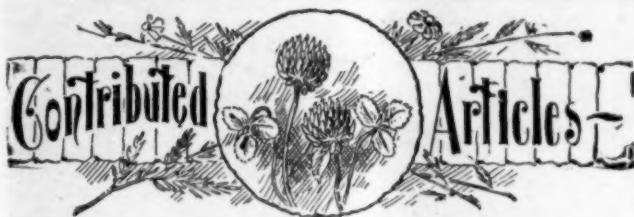
Mrs. Simpson—like all the rest of her sex—is of a retiring disposition, and so it has not been our privilege to learn more of the particulars of her life. We noticed, especially, that she failed to give the year of her birth, but as we had the pleasure

of meeting her at the World's Fair convention, we feel quite safe in saying that she is as old as most women get to be—which is 27, we believe! Now, she can't accuse us of "giving away" her age, for we really don't know what it is.

We agree fully with Rev. E. T. Abbott, who believes in "woman's rights;" and so we rejoice when woman exercises her "right" to keep bees, which takes her out into the health-giving sunshine, amid the beauties of Nature, and gives to her buoyancy of step and fairness of feature and form. Mrs. Simpson, like Mrs. Axtell, of Illinois, has evidently demonstrated the value of out-door employment to women. It is far ahead of the drug-store tonics, and much less expensive in dollars and cents.

What woman has done, woman can do. We trust that, where possible, more of them will combine with their house-keeping, that which will take them out into God's blessed sunshine—bee-keeping and poultry-raising.

THE EDITOR.



### Important Points on Hive-Construction.

BY ADRIAN GETAZ.

To begin with, do not think all my hives are constructed upon the principles hereafter outlined, for it is not so. When I first began I had some European bee-books and Quinby, and built my hives according to their descriptions and devices. Later on I became acquainted with the Langstroth and others, and built some hives of some other designs. I never threw away any, but some were modified, and I have now some six or eight different kinds of hives, and a dozen or more different kinds of frames. At this point I may say that for a honey-producer who handles his brood-chambers the least possible, it does not matter very much if all his hives and frames are alike or not. But for a queen-breeder who has to make nuclei and transfer his frames from one hive to the other almost every day, such a state of affairs would be intolerable.

#### THE HIVE STANDS.

To begin at the foundation, we will take the stands. Mine are benches long enough to hold four or five hives about 12 inches apart, and 14 or 16 inches above the ground. The legs of the stands are planted a few inches in the ground. The hives, or rather the bottoms and brood-chambers, are securely fastened to the benches.

At the beginning I used loose bottoms and loose brood-chambers on the bottoms, but after I had two hives carried to the next pond, the bees drowned and the combs of honey carried away, I concluded that a change of "base" would be an improvement.

There are some advantages in having the hives off the ground. It brings them to a convenient height for working in a standing position. By having several together, those at your side, while you are working at one, are very convenient

to lay on your tools, combs, etc., instead of putting them on the ground.

In summer time, if the weather is dry, the ground itself gets intolerably hot, and the hives are much cooler by being above it. In this part of the world, the winter is very rainy, and the hives close to the ground get splashed and wet considerably more than those above, which is certainly a disadvantage.

The bottoms ought to extend about 8 inches in front of the hives. With that precaution, the incoming bees loaded with honey will drop on them and never fall to the ground. The loss of very young bees, barely able to fly when handling the combs, is insignificant. Those that happen to fall on the ground generally succeed in taking wing, or climb on the bench-legs and finally enter some hive. For queen-breeders, handling frames every day, that loss might be serious, and for them it is preferable to have the hives on the ground.

It may be noted here that nearly all our leading writers are queen-breeders, and their advice, preferences and implements are better fitted for that branch of bee-keeping than for a honey-producer.

When I first fastened the hives to the bottoms and benches, I did it in such a way as to be able to "unfasten" them easily in case I should have to do it. As the years went by, I found that the necessity of removing the hives from one place to another occurred so seldom—in fact not at all—that I made the fastenings permanent.

A good deal has been said about the advantage of having hives light enough to be carried from one place to another. What on earth people want to move their hives around for, is a thing beyond my comprehension. There are only two cases in which it is necessary—that is, in taking the hives to the cellars and back, and in hiving swarms on the old stand, removing the old hive. The first case occurs only twice a year, and the extra weight would not amount to much. As to the second, I would rather carry the combs and bees to the new location. In fact, I do not practice that kind of swarming-management any more, as it is not suited to the nature of the honey-flow of this locality. As I winter the bees on the summer stands, the first consideration does not concern me.

It has also been argued that it is easier to clean the floor of the hive when the bottom is loose. Here, we have enough flying days in the winter to permit the bees to do the cleaning themselves.

As to piling two or three small hives on the top of each other to make a big one, I simply do not believe in it. I prefer to have a full-sized brood-chamber, and if necessary use a dummy. A hive too high cannot be ventilated easily by the bees in very warm days, and too much traveling has to be done to reach the supers, resulting in a loss of time to the bees by being in the way of each other.

#### THE BROOD-CHAMBER.

For this latitude a chaff hive, or something equivalent, is the best. The chaff need not be more than two inches thick, and the lumber may be not more than  $\frac{1}{2}$  inch thick. The object is to equalize the heat between night and day, and between warm and cold spells of weather, rather than to keep up a very high temperature.

The winter program here consists in a few days of weather warm enough to permit the bees to fly, followed by rain, and then a cold spell. The process is repeated throughout the winter, except an occasional snow instead of rain, and sometimes a two or three weeks' very cold spell (or what we call "very cold").

During the warm days the bees fly out freely, and toward night quite a number are chilled and lost. Some brood is started and when the cold weather comes again a portion of it is lost on account of the inability of the bees to cover it all. With a chaff hive these inconveniences disappear, or at least are considerably lessened. The walls of the hives do not get warm enough to induce the bees to fly unless the outside temperature is high enough to permit them to do it safely. And more than that, the warmth accumulating in the chaff during the day protects them that much better during the night. A similar equalization exists between the warm and cold days, and is especially useful in preventing the brood from being chilled. The advantages of thus protecting the brood increase as the season advances. During the summer the chaff protection acts as a shade during the day, and prevents the hive from reaching too high a temperature.

#### HIVE-ENTRANCES AND VENTILATION.

The entrances must be sufficient—the whole width of the hive, and at least one inch high. If the entrance-guards are used, then two inches high, and the whole width of the hive,

and at a distance of  $1\frac{1}{2}$  or 2 inches from the entrance proper. This also applies to queen-traps.

I don't want to have to raise the hive even if the bottoms were loose. The very hot days occur mostly at times when no honey comes in, and it is necessary that the bees can defend themselves successfully against robbers. An entrance-guard is the best help to them in that respect that could be desired. Before a robber bee can pass through, she is almost sure to be grabbed and executed, or summarily expelled.

Openings in the upper part of the hives are not only useless, but are actual nuisances. It is this way: An opening above will create a circulation of air on account of the difference of temperature between the inside and the outside of the hive. Now if the weather is cold, the circulation will be strong precisely when not needed, or even hurtful. If the weather is very warm, the temperature is about the same outside and inside, and there will be almost no circulation, and the top openings will then be nearly useless, besides affording robbers a splendid chance to raise a racket. For this reason I prefer to have an ample entrance only; that means also a hive not too high, and wide enough.

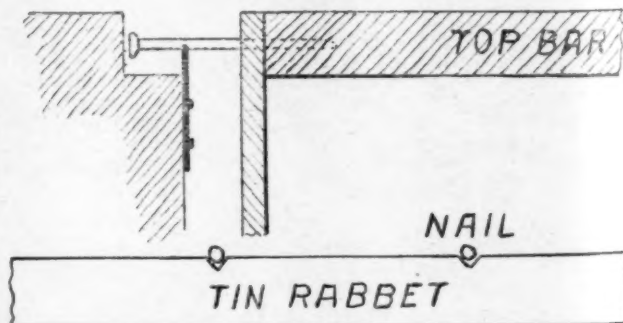
If during the summer the bees hang out, I add on the top one, two or even three empty supers; they may be without sections, as they are intended simply to increase the empty space so as to lower the interior temperature.

#### BROOD-FRAMES.

Thick top-bars are to be used so as to prevent, or nearly so, the building of burr-combs. As to length, I prefer a frame somewhat shorter than the Langstroth. But it is only for convenience of construction, as I want the brood-chamber of the same size as the supers. These hold four rows of  $4\frac{1}{4} \times 4\frac{1}{4}$  sections. As to the depth, it depends upon the size of the brood-chamber. This I find after a trial of many sizes ought to be about the size adopted by the Dadants. And here I want to repeat what I said above: Our leading writers are nearly all queen-breeders, and therefore have to draw constantly on their colonies to make their nuclei. The result is that these colonies never attain full strength, and that the size of hives they advise is too small for the best honey-producing management. Our most successful, large honey-producers—the Frances, Dadants, Hambaugh, Axtells, Alkin, etc.—use large hives. A few very careful men, such as Doolittle and Dr. Miller, obtain good results with smaller brood-chambers, but it is by very elaborate and tedious systems of management which would take too much time to be carried on anything like a large scale.

Deep frames are undoubtedly better for wintering, but the hive may be too high for ventilation, the more so because a tall hive being not as wide requires more supers to accommodate the bees. On the other hand, the Langstroth frame is decidedly too shallow for a large brood-chamber (I mean a brood-chamber of 12 or 13 frames). The queens go too often in the sections above the middle frames instead of extending the brood-nest clear to the sides. And when they don't go up, they seem loth to lay so far from the center of the hive, with the result that less brood is reared than would be in a 10-frame hive of the same capacity but deeper.

As to the method of hanging the frames, I prefer to have nails driven in the end of the top-bars, resting on tin or sheet-iron supports. Very shallow notches are cut where the nails rest.



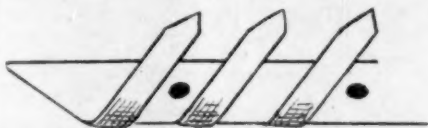
These notches are sufficient to hold the frames in place, but do not prevent a lateral movement. When the apiarist wants to take a frame out, he can push the others aside and very easily draw out the one wanted. When I thought of cutting these notches, I considered myself quite an inventor. Soon after I found that our departed friend, B. Taylor, had preceded me in that direction. I think, tho, that B. Taylor

cut his notches much deeper than I, and thereby lost the lateral movement. Frames contracted as above can be put in and taken out as easily as those hung on A. I. Root's old tin corners and tin rabbets, and at the same time have all the advantages of the self-spacing frames without their inconveniences.

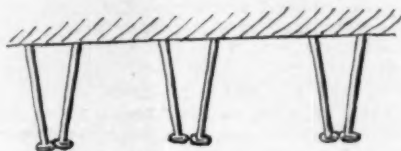
Hoffman frames, and even all-wood frames, are a nuisance. Where the apiarist is a queen-breeder, or for some reason or other handles his frames frequently, the propolis never accumulates enough to interfere; but when the frames are moved but once or perhaps twice a year, at swarming time, or even not at all, the wooden ends of the tops or the sides of the Hoffman get "fist" and fastened, sure enough.

The depth of frame adopted by the Dadants is, I think, near the best, as far as my experience goes.

The frames do not always hang vertically in the hive. Even those as shallow as the Langstroth frame need some kind of spacing arrangement at the bottom. The best is a strip of tin with teeth cut in and turned up so that the frames come in between, thus:



What little propolis is affixed there does not interfere with the taking out of the frames. With loose bottoms, I had good results with nails driven at the back wall of the hive, about  $1\frac{1}{2}$  inches above the bottom, and letting the ends of the frames drop between them, thus:



THE SUPERS.

Much has been said and written upon the importance of protecting the brood against the variations of temperature during the early spring, but very little about the necessity of protecting the supers given in the early part of the season. In my locality the second consideration is fully as important as the first. Owing to the altitude of the country (that means the height above the sea-level), the nights are cool during most of the honey season, and this condition exists also in some of the extreme Western States.

Most of the comb-building, and of the inside work of the bees, is done during the night, as a portion of the bees that gathered the nectar during the day go to work inside after the day-work is over. If the nights are cold, and the bees unable to work freely in the supers, the result will be a clogging of the brood-nest, a failure to build and fill the sections, a considerable loss in the quantity of honey gathered, a loss of brood, and finally a "swarming crop" instead of a honey crop.

After using several kinds of outer cases, I came to the conclusion that chaff supers are the best contrivance that can be adopted. They are made like the brood-chambers described before. To support the sections, I use almost altogether iron bars about  $\frac{1}{8}$ -inch thick, or somewhat less, and about  $\frac{3}{4}$ -inch wide. That is the best I know now, but yet not altogether satisfactory. I use sections open on all sides, without separators, and with such sections T tins cannot be used.

THE HIVE-COVER.

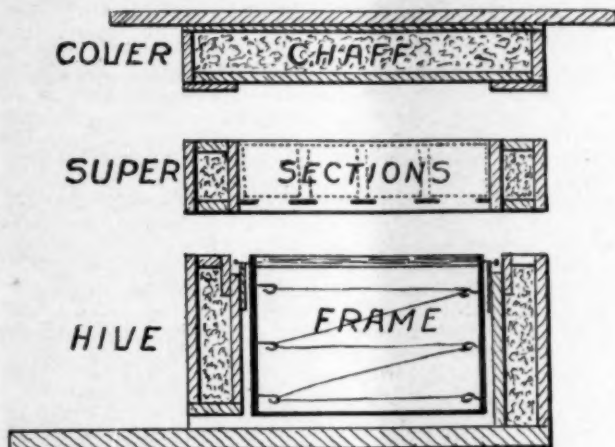
A chaff brood-chamber with chaff supers needs necessarily a chaff cover to complete the outfit. The chaff part is of the same size as the supers or the hive, but the top is considerably larger, so as to help in shading the hive and protect it against the rain.

A large cover has to be made of several pieces, and then be covered so as to prevent the rain from running in at the joints. I use oil-cloth. The wood has to be painted on both sides before putting on the cloth, otherwise the dampness would accumulate between, and rot both in less than two years. The cloth will last almost any length of time if repainted as soon as it begins to crack, and again every three or four years. I think ordinary, cheap tar-building-paper would

do just as well as the cloth, but I have not tried it. I think, also, that narrow-heart Southern pine ceiling, tongued and grooved, with white lead in the joints, and painted both sides, would do without any other covering, but I have not tried it.

## GENERAL CONSIDERATIONS.

Well, the whole hive would be something like this:



As to practical details of construction, the best is to get the necessary pieces cut in a wood-working shop, and the apiarist to put them together himself. Pieces like that can be had at about the same price as the lumber simply drest. The reason is that all wood-working establishments have quite a large amount of scraps out of which small pieces can be cut.

As to putting together, it would cost too much to have it done at the shop. If the apiarist cannot do the work himself, the best is to hire a common carpenter and have him do the work under the apiarist's supervision.

I spoke of chaff in the above description, but I have used any non-conducting material that happened to be handy—planer shavings, leaves, rags, old papers, etc. My preference is for straw. Nail the bottom strips, and cut off "stray straws" sticking out, with a pair of scissors, and then nail the top strips.

In using outer-cases and temporary packing, I prefer old rags. They can be put in and taken out without making a muss as with shavings or leaves. Knox Co., Tenn.



## Working the Same Colonies for Both Extracted and Comb Honey.

BY WM. M'EVROY.

In producing comb honey I gave the crate system a thorough trial, and also the wide-frame method as followed by others, and never was fully satisfied with the results of either. As I was running my apiary more for extracted than comb honey, I concluded after some testing that I could make a big success of getting nice section honey stored very fast in top stories among extracting-combs, and also get a fine quantity of choice extracted honey from the same colonies, and greatly lessen the number of swarms. When the honey season begins I place on my strongest colonies hives filled with the very whitest of combs, and when the bees are storing honey fast I remove half of the combs, then spread the remaining half apart and hang between them wide-frames with sections in. The bees will then rush up the extracting-combs, and with no separators in their way will fill the sections very fast.

When the sections are about three-quarters full of comb I shift the extracting-combs to one side of the hive, hang tin separators between the wide-frames, and then crowd them up by themselves. The top-bars and ends of the tin frames are made out of double tin, the ends of the tin frames are made out of double tin, and the ends of the separators are soldered to the uprights or end of the frames, leaving the usual space between the separators for the bees to get in at the bottom and top edges of the sections. The last half of the season I crowd the wide-frames with sections into the center, and place the extracting-combs at each side of them, so as to have little or no unfinished sections when the honey harvest ends.

I always fill my sections with foundation because it pays me far better to do so. When I followed the crate system,

and also the filling of the top stories with wide-frames with sections in, I was sometimes caught with many unfinished sections by the sudden closing of a honey-flow. This combination system of taking both section and extracted honey from the same colonies, and the tin frames with separators on, that I got up to suit it, works fine.—Canadian Bee Journal.



### The Two Bee-Keepers' Unions—Amalgamation.

BY W. Z. HUTCHINSON.

I did think, now that amalgamation is defeated, that I would write no more on this subject, but Prof. Cook's excellent, but untimely, article has so stirred me that I cannot refrain. A few articles like this, from leading members of the National Bee-Keepers' Union, last fall and winter, would have entirely changed the results—perhaps the Professor's article alone would have done this. Prof. Cook and myself have always been warm friends, and I have always admired his integrity, his fairness, and his comprehensive grasp of even a complicated subject, hence it has been a great surprise to me that he should be so slow in reaching the conclusions that he so clearly lays down in his article on page 242. In short, I cannot conceive how any clear-headed, conscientious, unprejudiced mind could reach any other conclusions.

Nothing was more apparent several years ago than that the National Bee-Keepers' Union had practically finished its work upon the lines upon which it had been built, and bee-keepers began to demand that it become aggressive as well as defensive, and finally the constitution was so changed that the work of prosecuting adulterators of honey might be added to the work of the Union, but, for some unknown, unexplained reason, no work of this kind was ever attempted. My own personal opinion is that things would have been different if the views of the General Manager had been different, but this is only an opinion, and it may be faulty. Money continued to accumulate in the treasury, but nothing, or next to nothing, was done with it, and finally there came the talk of amalgamation, of uniting the two National Societies into one grand society, and so changing the constitution that the funds and influence of the amalgamated association could be used for prosecuting honey-adulterators, that this be made a prominent feature. From the very first there has been, apparently, a silent, unseen, undefinable influence *against* this union of the two organizations. Gradually there grew, in the minds of some of the members of the Union, the idea that the North American was after the Union's *money*. But there is no use in going over all of the ground; those who have read the American Bee Journal know it too well. Then when the matter of a vote finally came, the matter was not put before the members in its true light. It may not be a pleasant thing to say, but there is no use of mincing matters. A good share of the General Manager's report (with which was sent the blanks for voting upon a change of constitution, or for amalgamation) was devoted to a special pleading that tended towards the defeat of amalgamation. Of course, a General Manager has a right to express his views, but no more so than has the most humble member, and to accompany voting blanks with arguments upon one side of a question, and not allow the other side to be heard, is not likely to result in a fair decision. Suppose, instead of the General Manager's views, the voting blanks had been accompanied by Prof. Cook's article.

Fortunately, through the wise foresight of the bee-keepers that gathered last fall at Lincoln, the amalgamation failed, there is now a New Union formed upon lines that are up with the times. This organization is now complete, with a Board of Directors, and General Manager, and ready to begin to do what the Old Union has failed to do, viz.: work for the suppression of the adulteration of honey, and to expose and to punish dishonest dealers, in fact, to do anything that is for the good of bee-keepers.

I expected that the formation of a new Union would rouse the old Union into life, bring it to its senses and perhaps induce it to try and do something in the way of fighting the adulteration of honey, and Prof. Cook's article is an indication that my expectations were not in vain. Of course its General Manager is opposed to such a course, but I think that he would yield to the wishes of the majority. But just look at the foolishness of the matter. Two National organizations with the same object in view! "In union there is strength," but the present course of bee-keepers looks a little bit like *disunion*. But how could it be helped? It seemed the only course left.

But I have no desire to abuse the old Union. I don't know as any one has such a desire. I feel that many of its members have been deluded, and have unwittingly voted against their own interests, but if they can use what money and influence

they have in doing good, we certainly ought to bid them God-speed, and join hands and help all that we can. That is, we ought not to try and *negative* the *good* that they can do, but I do think that our dollars and our influence ought to go to the New Union that, under difficulties and opposition, has come forward ready to put its shoulder to the wheel without waiting until it was actually forced into this position.

There has been some talk about changing its name to something besides that of "Union," as it somewhat conflicts with that of the old Union. Of course, when the name Union was chosen, it was with the hope and expectation that there would be an amalgamation, and thus only one association left. Now that this has failed, it may be well to change the name, (I would favor "Alliance" as a name) at least, so long as the old Union is in existence. I say "so long as the old Union is in existence," because I fully believe that eventually there will be only one National association of bee-keepers, and that it will at once be social, educational, defensive and aggressive.

Genesee Co., Mich.



### THE LINDEN.

BY HON. EUGENE SECOR, FOREST CITY, IOWA.

I come with a song for a tree near my cottage—  
A treasure God placed in his own garden-bed;  
A tree which has stood while my wife and my children  
Grew sweet as the creamy-white blossoms o'er head.  
Around it the giants of Nature are standing—  
The oak and the walnut—primeval and grand;  
But nothing in forest or field can compare with  
The linden in whose cooling presence I stand.

When suns of mid-summer are hot and oppressive,  
We keep our noon-trysting beneath its deep shade;  
Its emerald roof gives a promise of shelter  
From fiery old Phoebus when scorching the glade.  
The catbird and robin have left the ripe berries,  
To rest in the boughs of my favorite tree;  
They'll give me a song for the fruit which they pilfered,  
And evening shall witness a bird-jubilee.

How charming to me is the music created  
By swift-flying bees when exploring its bloom!  
My dreamy repose as I swing in my hammock  
Is often enriched by its grateful perfume.  
Oh, sing not to me of blest Araby's odors—  
Of spices and incense from tropical seas!  
But waft to my senses the fragrance of linden  
Exhaled by the breath of the home-coming bees.  
—Gleanings in Bee-Culture.



### Bees, Honey and Flowers in California.

BY PROF. A. J. COOK.

The California bee-keepers are expecting a large honey crop the present season. The rain has been very abundant all through Southern California. The flowers are already very abundant, and there seems only one further factor requisite to a fine crop of honey, and that is good weather. Occasionally, just as the honey season opens, there come dry, hot winds, or possibly cold winds, which seem to dry up the flowers, so that there is an absence of nectar. This, however, very rarely happens in Southern California, and so we may hope with some confidence for a good honey season.

The last week has been very warm. The flowers have opened in great numbers, and the bees have been fairly jubilant as they rush to the fields in search of the precious nectar. This has led to swarming, which has been taking place very generally the past week. It is feared that it has taken many bee-keepers by surprise. One bee-keeper came to me and wished to know if I had hives to spare. The wise bee-keeper will always take time by the forelock, and be prepared for just such emergencies. It is not wise to leave the purchase of supplies to the last moment. Such action often leads to no inconsiderable loss. In California there seems the less excuse, for we usually know as early as February if the rainfall will warrant a honey season. With this knowledge, hives and other supplies should be secured that all may be in readiness at the dawn of the swarming season, as also at the dawn of the honey season.

The new comer in California is always meeting with surprises. This season a new surprise has come to me. I have already stated in the American Bee Journal that California flowers are very long in blossom. I think this more remarkable of California than of any other region that I have ever visited. This season our flowers came out much earlier than

they did in either of the three previous years since I came here in the fall of 1893. My class in botany is pursuing this subject from April to June, inclusive. As I saw the April flowers out in March, and even February, this year, I felt a regret that my students would fail to study many of our most beautiful blossoms. I find now that my regrets were wholly unnecessary, for while many of the blossoms came out several weeks earlier than in previous years, yet I find nearly all of them in blossom now. In fact, I doubt if we shall miss a single one. It would seem that some of the flowers are slower to develop, and thus not all feel the effects of the early seasons. This adds another glory to Southern California; for it adds to the profusion of flowers which always greets the lover of nature as he strolls forth over the fields in the spring-time.

Los Angeles Co., Calif., April 19.

## CONVENTION PROCEEDINGS

### Report of the Illinois Bee-Keepers' Convention

BY JAS. A. STONE, SEC.

[Continued from page 262.]

Mr. Geo. F. Robbins then read the following paper:

#### THE BEE-KEEPERS' PROBLEM OF THE FUTURE.

In announcing this subject I don't aim to give you an impression that the object of this paper is to furnish a solution of the question—the future itself must solve this problem. My intention is only to state the question and suggest a possible solution.

The problem in brief is this: Are there any means by which bee-keepers can be made sure of a regular annual honey crop? If so, what are those means? If I could be sure of crop of 50 pounds per colony every year, at the low price of 10 cents per pound, I could safely invest all my small resources in bee-culture—could make a fair living, and lay up a little money, perhaps. The uncertainties of bee-culture are its greatest drawback. And under the conditions of climate, etc., we have been having, and are likely still to have, the uncertainties are almost certain to be in even a greater degree than heretofore, if we must continue to depend upon the same flowers to furnish the nectar.

The Linden groves are being cut away, never to be renewed. The swamps and bottom lands that used to grow such quantities of autumn-yielding honey-plants are becoming drained and tilled, while the constantly recurring drouths kill out the prince of honey-plants—white clover. And the drouths themselves are likely to continue.

Cutting off the timber and draining waste lands make evaporation much more rapid, and hence irregular; give a cleaner sweep to the winds, by which and other means the annual rainfall is diminished, and drouths become more frequent, and of longer continuance. Indeed, our long summer drouths have become almost a fixture of our Illinois climate, with every prospect of their continuance. For a strong testimony to these things read the able paper of Dr. Daniel Berry, in the Report of the State Farmers' Institute for 1896, page 124. That the causes I have mentioned do produce drouths I believe scientific men generally agree. Hence, I say, the prospects of obtaining good annual crops of honey are far from bright, if we must still depend upon the same old sources.

Must we conclude, then, that bee-culture is a dying industry, so far as our State is concerned? That would seem to be the case from what I have said. So far, indeed, the conclusion is unavoidable. I have said, however, if we continue to depend upon the old sources of honey. If, then, we are to be more sure of honey crops we must look to cultivated plants, in the main. I say in the main, because, while sweet clover is booming into prominence as a honey-plant, if sown by the wayside and in pastures where alone it seems to be profitable, it can hardly be classed with cultivated plants. But red clover, crimson or Alsike, are properly cultivated plants. Alfalfa may or may not prove a staple crop in Illinois.

I don't know what to say about crimson clover. It may

prove a success in some parts of the State, and become something of a staple crop. Red clover will probably never prove to be a honey-plant. But one known honey clover, at least, may and should become a leading crop on Illinois farms. That is Alsike.

It is no digression from the subject to devote a paragraph or two here to the value of clover in general as a farm crop. Clover is pre-eminently valuable for two purposes, viz.: 1st, As a food for stock; 2nd, As a fertilizer. Its merits in these respects are beginning to be recognized, but still they are not known as they should be. All Illinois farmers ought to have heard the talk of Prof. Carter, on clovers, at the State Farmers' Institute last Tuesday afternoon (Feb. 23, 1897). I want to call attention here to some of the leading points of his address.

He shows that clover hay possesses in the largest measure the protein chiefly necessary to make bone, muscle and fat, of all stock foods. Both analysis of the foods and actual experience prove this. But of even greater importance than that are its merits as a fertilizing crop. Mr. Carter shows from the reports of the experiment station, and his own experiments, that a clover sod turned under in the fall or late summer has produced better results than ground well manured with barn-yard manure. In one case a clover field of 12 acres thus plowed up had been divided into 12 lots. Ten of these lots had had that many varieties of artificial fertilizers added, and the whole planted to corn. The two which had not received the extra treatment, actually yielded better results than those which had. Mr. Carter's address will, I presume, be printed in full in the forthcoming Report, and it must certainly prove one of the most valuable papers of this session of the State Farmers' Institute.

The points already given show that clover culture should become one of the leading enterprises of the Illinois farmer. But in addition I want to suggest another. Illinois farmers would find it would pay to practice a system of rotation of crops, covering a period of about three years, but varied perhaps as circumstances might suggest, in the following order: Corn or other tilled crop, small grain of some kind, and clover, allowing the latter to stand one year after seeding, and thus return to tilled crops again. While the prime object of this system is renovating the soil, the value of clover as a feed chimes in well with the system.

The merits of clover in general being thus seen, I may now pass to those of Alsike in particular. We are not without testimonies to the effect that Alsike is worth more than the generally-grown red clover, at least for certain purposes. Mr. Stone can tell you of a man near Elgin, engaged in dairying, who claims that actual tests prove that this clover fed to cows produces more milk of a better quality than the red, while one farmer at least, whom we personally know, says that Alsike clover as a hay or forage plant is the best milk and butter food he knows. That is Mr. Cooper, of Sherman—not a noted man, but a pretty intelligent kind of a man, none the less.

Mr. Carter observed that a liveryman would say, "Red clover hay is not a healthy food for horses," and simply commented that the liveryman "don't know that." The great trouble in this case is, that the liveryman is too near correct. One very superior quality of Alsike clover is that it lacks the fuzzy, or hairy, bloom which is the unhealthy ingredient of red clover.

The conclusion of all this is, that when the merits of Alsike clover as a farm crop become known, and it shall be generally grown, we may be much more certain of honey crops, as the properties of this clover as a honey-plant are admitted.

I want to add another thing: If the system of rotation I have described should be practiced, I think we would have more regular crops of white clover bloom than we now have. Where clover has grown for many years there are always countless seeds in the ground only awaiting favorable conditions to germinate. As a consequence, I have seen a crop of white clover bloom in a field seeded the second year to small grain. I have known, also, where wheat and red clover have been alternated for some years, the clover would seed itself. Hence, I think if this system of rotation were practiced, growing tilled crops only one or two years in succession, there might generally be a white clover bloom every year the Alsike should be grown. Certainly if it should germinate, a drouth would not kill it out, as it does in a blue-grass sod.

Some reports seem to indicate that Alsike does not reseed and perpetuate itself very well—that red clover is much better in that respect. This is no great factor if the ground is to be plowed up and tilled after growing one crop.

I want to add here what I forgot to say in its proper place, that I don't claim the idea of rotation of crops with

clover as a prominent factor in the system as original with myself. It has been tried by others, and its merits published before I ever thought of the plan.

Honey will never, perhaps, become a staple in the sense that sugar or potatoes are staple commodities, but at moderate prices it has already become so near such that it will command those moderate prices and be in sufficient demand to make honey-production as profitable a pursuit as the average, if reasonably good crops can be obtained. Whether or not this can be done I am convinced depends largely upon whether or not farmers shall find it to their interest to grow crops that will at the same time yield honey.

GEO. F. ROBBINS.

It was the general opinion of the members that the meeting had accomplished much for the Association by its prominence before the State Farmers' Institute.

The convention adjourned *sine die*.

JAS. A. STONE, Sec.



### Texas State Bee-Keepers' Convention.

The 19th annual session of the Texas State Bee-Keepers' Association met recently at the apiary of W. R. Graham. Owing to the death of Rev. W. K. Marshall, President of the Association, and feeble health of Vice-President W. R. Graham, W. R. Howard, M. D., was elected temporary chairman. The following bee-men answered roll-call: W. R. Graham, W. R. Howard, P. G. Carter, A. M. Tuttle, M. M. James, M. Kimbrough, C. W. Simpson, J. N. Hunter, P. D. Farmer, A. D. Morgan, A. A. Girdner, W. M. Stapleton, and several visitors.

The Association was given the liberty to go through the large bee-supply factory and apiary of Mr. Graham. In the bee-yard were nuclei and special hives for queen-rearing. In the factory the manufacture of everything used by up-to-date bee-keepers was in full blast.

At 2 p.m. the meeting was called to order by W. R. Howard, and prayer offered by J. N. Hunter.

A committee was appointed to draft suitable resolutions on the demise of Rev. W. K. Marshall, who died Jan. 6, 1897.

The discussion of honey-producing flora was taken up, especially cotton-bloom. It was generally concluded that the best honey was gathered from the black-land cotton-bloom. Honey-dew figured largely in the discussion. Next the diseases of bees was discussed, led by Dr. Howard.

Queens, hives, feeding and feeders, honey-plants, and sowing alfalfa for bees, all came up for discussion. An adjournment was then had until the next morning at 9:30.

When the Association was called to order by the President, *pro tem*, W. R. Howard, the committee on memoirs, reported the following, which was adopted:

WHEREAS, Our beloved President, W. K. Marshall, has been called from his post of duty amongst us, and has been removed to a higher and holier plane beyond this life;

WHEREAS, The Texas Bee-Keepers' Association has lost one of its most ardent members, the State and community a faithful citizen and a worthy Christian gentleman; therefore, be it

Resolved, That in this, our unanimous expression of sorrow and grief, we tender our sincere sympathy to the bereaved family and friends; that a copy of these resolutions be spread upon the minutes of the Association, and that a copy be sent to the bereaved family.

W. R. HOWARD, J. N. HUNTER, } Committee.  
P. G. CARTER, A. M. TUTTLE, }

The following officers were elected for the ensuing year: President, W. R. Graham; Vice-President, W. R. Howard; Secretary and Treasurer, J. N. Hunter, Leonard, Tex.

The discussion of the diseases of bees was resumed and discussed at length. A resolution of thanks to Mr. Graham and his family for their kind hospitality, and a tender of sympathy to Mr. Graham in his affliction, was unanimously adopted.

The convention adjourned to meet the first Wednesday and Thursday in April, 1898, at Greenville.

J. N. HUNTER, Sec.

**White Clover Seed.**—We have quite a quantity of White Clover Seed on hand that we will send you at a bargain. A little of it goes a good ways. It usually retails at 25 or 30 cents per pound, but we will mail you 2 pounds for 40 cents, or for sending us one new subscriber to the American Bee Journal for a year.

## Questions AND Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

### Combs of Honey from a Colony that Had Paralysis.

I had a colony of bees that I think had bee-paralysis, and I destroyed them with sulphur. Upon examination I find the combs nice and straight, nearly all worker. Can I with safety use the combs? As they were in a single story it will only be a loss of ten combs, which I had rather lose than run the risk, if there is any. The combs are filled with brood and honey. Will it hurt the bees to clean them up?

A. V., Louisiana.

ANSWER.—I think no one has ever reported the conveying of the disease from combs or honey, so I should use them.

### Use of the Dummy or Division-Board.

In the book "A Year Among the Bees," we read on page 49, line 14: "When it.....frames;" and on page 50, lines 23 to 27: "The 4 or 5 frames.....top-bar." I tried this plan last year, but it did not work well with me. My bees build new combs on the lath in the empty room and filled them with honey before they went into the sections. Now I would like to know:

1. How wide is the dummy (empty space) between the comb and division-board?

2. Has the empty room, north of the division-board, to be shut up (so close) on top and below that no bee can get in it?

G. R.

ANSWERS.—Bee-keeping is rather an unfortunate subject to write a book about, because what seemed right ten years ago may seem quite different now. At present I don't follow the plan about which you are inquiring. Bees don't make very good work in that part of the super that has no brood-combs under it, and in general it is better to leave combs under the whole super. But I'll try to answer your questions.

Remember that a 10-frame hive was used, 15½ inches wide inside, and over it was placed a super 12½ inches wide inside. When the super was put on, that left 2½ inches of the width of the hive uncovered, as explained on page 51. Possibly you covered that 2½ inches, and if so you'd be pretty sure to have plenty of comb built in the empty space. With the dummy and division-board between them and the brood-combs, and nothing but the open sky above them, the bees were not much inclined to build. The dummy was made of inch lumber, and was just the size of a frame of brood-comb. The bees were not prevented from going into the empty space, for altho the division-board fitted quite close at the ends, bees could freely pass under it in most cases. As already said, the freedom from comb-building came from the separation of the bees and from the openness of the place.

### Swarming—Introducing Queens—Early Queens Dark.

1. On the third Monday in March I had a large swarm from a very strong colony of Italians. I caged the queen when she came out, and let the bees hive themselves, by removing the mother colony to a new stand. On examination of the old colony I found 9 capt queen-cells. The same day I made equal division of 8 strong colonies by removing 5 frames and the queen and all adhering bees, besides giving them the bees from one more frame by shaking the bees off. I closed the entrance with wire-cloth until the next evening, and then gave to the queenless part on the old stand a capt queen-cell in a Doolittle queen-cell protector. Only two cells were capt, and the two colonies swarmed as soon as their first cell was capt. I caught the queens and returned them, and

destroyed all cells. Why did they swarm? or why did they prepare queen-cells when they already had the capt cell I gave them?

2. Will a queenless colony of bees accept a queen at the entrance of the hive, as the queen hatches? That is, in cutting out cells some of them would hatch in my hand and I let them crawl out into a queenless hive.

My bees are doing splendidly. They have been bringing in honey for over 30 days.

3. Some of the queens reared from yellow mothers are as black as can be. Will the black queen from a yellow mother mated with a yellow drone produce yellow bees? The only solution I can guess at is, that the spring has been cool. This is my first experience in artificial increase.

New Berne, N. C.

ANSWERS.—1. The two colonies that swarmed were in the same condition as any colony that casts a second swarm. They had a young queen just emerged, and a number of young queens just ready to emerge, and what perhaps had still more to do with the case, they had probably quite a strong force of field-bees, and these were busily bringing in honey. Under such conditions any colony would swarm that half knew its business.

A queenless colony will nearly always prepare not merely a single queen-cell, but a number of them, and your giving them one would not change their instinct in that respect. If you had given a dozen queen-cells to each one they probably would have started others.

Now I'll answer a question or two that you haven't asked. You might have had better results by proceeding differently. Instead of putting the queen on a new stand, you ought to have left her on the old stand, putting the queenless part on the new stand. It is not necessary to fasten in the bees for 24 hours. Most of the field-bees would go back to the old queen, and that would be all right. At the end of 24 hours they would be reduced in numbers, no honey coming in, and feeling meek enough to accept thankfully a queen-cell from you. Even if they started other cells they would be destroyed as soon as the first hatch.

2. Generally they will.

3. It is a common thing for queens reared early in the season in cool weather to be darker than those reared later, just as you supposed. But their workers may be just as light as any. Some of the imported queens are very dark.

#### Not Flying Much—Transferring—Preventing Foul Brood.

1. March 10 I bought a colony of bees in a Langstroth hive, paying \$5 for them. At first they seemed all right. On warm days a good many were flying out, but for the last two or three weeks they have not flown much. Some warm days they fly pretty well, but most of the time they do not go out, but loaf around on the alighting-board. The man that I bought them of told me to feed them every day to get the queen to laying, so from the first I put a feeder on the frames, and every night (with a lantern for light) I put in syrup made from granulated sugar. Was it wrong to open the hive on cool nights, if only for a few seconds? If the queen is lost or dead, is it any fault of mine? There seems to be plenty of bees, and no dead ones around the hive. What is the matter with them?

2. I have a colony in a box-hive, the top of which is easy to get off, but the bottom is nailed tight. When I transfer them can I drum them out from the top, or will I have to invert the hive and get them out from the bottom.

3. I saw in a copy of the Bee Journal that carbolic acid and tar placed in a little box with the cover perforated and put under the frame in a hive was a sure cure for foul brood. Wouldn't it be a good idea to keep the acid and tar in every hive, so as to prevent foul brood? Perhaps it would keep the bee-moth out, too.

Bridgeport, Conn.

ANSWERS.—1. It isn't easy to say without knowing more minutely about the case. Possibly the colony is all right. When bees have the first chance in spring, they make a big time flying out, no matter if they can't do anything but to fly around and come back again. After that they are more saving of their strength, and don't do much flying except to some purpose. If there is nothing upon which the bees can forage, you ought not to expect them to fly much. It isn't well to open a hive when it is cool, but probably you didn't do much harm by opening it for a few seconds. But don't do so any more. Let bees alone when it's cool, unless they are in danger of immediate starvation. And it's about as comfortable to starve to death as to freeze to death. If the queen was all

right your opening the hive would probably not result in her death, altho it might have some tendency in that direction.

2. You can drum out just as well without inverting, and probably better. The only object in inverting the hive is because the hive is open at the bottom and not at the top. But I'm a little puzzled to know how a box-hive can have its top easily removable. Perhaps, however, the combs are fastened to bars, and not directly to the top.

3. Not much attention is paid to the use of drugs either for the cure or prevention of foul brood in this country, but across the big pond they pin their faith no little to them, many making a practice of constantly using something like naphthaline or carbolic acid as a preventive. It can at least do no harm, unless so strong as to be offensive to the bees. It is doubtful whether it would do any good to keep out moths. The microbes or bacilli of foul brood are not of animal growth like moths, but vegetable.

#### A Plan of Dividing a Colony.

Having a colony of Italian bees which I wish to divide, in order to get two or more queens from the Italian mother, can I proceed in this way, viz.: After fixing a division-board in an empty 8-frame hive, take six frames out of the old hive, putting three on each side of the division-board, and making the entrance of each on the opposite ends of the hive? How long should the bees be confined? The remaining two frames I would leave in the old hive with the queen. I suppose, of course, that the three frames of bees would each rear a queen. If you do not approve of the above, kindly suggest a better plan.

C. M. M.

ANSWER.—Your plan will work all right, the only trouble being that you're not as likely to get good queens as if they were reared in a strong colony. I should prefer this plan: Take two frames with the queen and adhering bees, and put them into another hive on a new stand. That leaves the old colony strong to rear queens of the best character. A week later put the queen with her two frames back on the old stand, and put your hive with the middle partition where the old queen has been. The bees being now queenless will mostly stay wherever put. Perhaps you may do well to leave only two of the frames in each nucleus, giving the other frame from each to the old queen. If the weather should be at all cool at any of the time, you will find quite an advantage in having the two nuclei in one hive. Be sure there is no communication inside between the two compartments, and on each side put the brood-frames close to the division-board, which is best to be not more than  $\frac{3}{8}$  or  $\frac{3}{4}$  inch thick.

#### Questions About Swarming.

As swarming time is drawing near, I would like to ask you a question or two concerning the same. I have only a few colonies, being a beginner. I am interested in them, and wish to learn all I can.

1. Can a person tell within a day or two, at most, when a swarm will issue? Some tell me they will issue leaving only capt queen-cells; others say the young queen is always hatch first.

2. After a swarm issues, should all the queen-cells but one be cut out immediately, or in a day or two?

3. Do second swarms ever come off accompanied by more than one queen? If so, please explain it.

J. M. O.

ANSWERS.—1. No, you can't tell for sure within a day or two. During the swarming season, when you find a colony that has a good laying queen with a number of sealed queen-cells, you may feel pretty sure it will swarm within a week, in fact generally within a day, but you can't always be sure, for sometimes they seem to change their minds and give up swarming. As a rule, the colony swarms with the old queen as soon as the first queen-cell is sealed. It would be a very unusual thing to wait till the young queen was hatcht.

2. Very few bee-keepers practice cutting out queen-cells after a swarm issues.

3. Sometimes quite a number of young queens will come off with the last after-swarm. I hardly know what there is to explain about it. The bees seem to have given up the idea of keeping the young queens confined in their cells, all are allowed to emerge, and being free they are more likely to go with the crowd than to stay in the hive.

☞ This is a good time to work for new subscribers.

# The American Bee Journal

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GEORGE W. YORK,

Editor.

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## Editorial Comments.

**New Union Membership Fees** are coming to this office now. That is right; just send your New Union dollars to the Bee Journal office, and we will promptly turn them over to the proper officer, who will then send you a receipt. Remember, the General Manager can't do a thing towards carrying out the objects of the new society without having a good bank account to fall back upon. So in order to get the General Manager to work, we must furnish him the wherewithal to begin on. We would like to see the Bee Journal readers well represented on the membership roll of the New Union.

**American Fruit Growers' Union.**—Hon. Geo. E. Dudley, one of Utah's leading honey-producers, wrote us as follows lately, concerning the American Fruit Growers' Union, which may some day be able to help out bee-keepers in the marketing of large crops of honey:

EDITOR YORK:—I wish to know through the columns of the American Bee Journal, something about the "American Fruit Growers' Union." They advertise to handle honey with farm produce, and have agents in all the large cities in the United States. The general idea is good, but is there any way for you to find out whether they are reliable or not?

If this American Fruit Growers' Union is all right, would it not be a good idea to talk with them and get a reliable honey-man to take the honey department with them, and keep in communication with all the large towns and cities, so as to have the honey crop distributed where it should be, instead of its being piled up in some cities to such an extent as to glut the market and ruin prices?

Unless a well known man could be placed at the head of such a department, producers of honey would be afraid to ship to them in large lots.

GEO. E. DUDLEY.

Upon receipt of Mr. Dudley's letter we called at the office of the Fruit Growers' Union, and had quite an extended interview with them. We also, fortunately, met the Union's Denver agent, who previously had a 27 years' experience in the produce commission business.

From what we could learn, we believe this Union has a great future, and can be of wonderful service to its patrons. But it is yet in its experimental stage, and while it anticipates handling some honey this year, we think it is hardly in a position to do an extensive business in that line now.

We really believe that some such organization is just the thing for larger producers of honey to co-operate with, for they can have the facilities for handling the honey-business in connection with their fruit trade, that bee-keepers' couldn't possibly afford alone. That is, the honey industry is not suffi-

ciently extensive to swing itself in such a manner, and do it profitably to honey-producers.

We believe the California Bee-Keepers' Exchange expects to try working in connection with, or through, the American Fruit Growers' Union this year, and after one season's experience it will be better known whether it would be advisable for all large honey-producing sections in the country to thus connect themselves with the Union.

We think the Union has the right idea, but it is a stupendous scheme. Of course the majority of the best commission men are opposing it, for they seem to think that it proposes to annihilate them. But such fears are groundless. We believe, finally, that all honest commission men will welcome its aid, tho it can be invariably counted on that the fraudulent concerns will forever be against it. You see it will simply cut off the chance for them to get their hands into the producers' pockets, when all produce is first sold to or through the Union. If a success, it certainly will effectually kill out the snide commission dealers—a thing greatly to be desired.

Perhaps we have said enough on this subject for this time. As soon as we can learn something a little more definite concerning it, we will again bring up the subject in these columns.

**Back Numbers Since Jan. 1.**—We are able to supply complete sets of the Bee Journal since Jan. 1, 1897, to any who may desire, at two cents per copy. There are a number of new readers who perhaps would like to get some of the first numbers of this year, to complete their volume for 1897. We shall be glad to furnish them as long as they last, at two cents each.

**Stingless Bees of Central America.**—Mr. J. H. Martin, in the March Rural Californian, in speaking of stingless bees, says that "the Department of Agriculture is making inquiries into the honey-producing value of the stingless bees of Honduras. A colony of the genus *Melipona* was brought to the Department grounds in Washington and kept under observation for some time, but they did not prosper; failed to breed up though fed regularly, and finally deserted the hive. The entomologist further reports that these bees will not withstand our winters, as they do not thrive where the temperature goes below 50° Fahr. They are considered of no value here."

**Queen-Bees and the Mails.**—We received an advance proof of the following from Mr. Ernest R. Root, Chairman of the Board of Directors of the United States Bee-Keepers' Union, which also appeared in Gleanings for May 1:

### QUEENS EXCLUDED FROM THE MAILS.

A gentleman conversant with mail matters informed E. T. Abbott, ex-President of the North American Bee-Keepers' Association, that the Government was "talking of excluding queens from the mails." This would indeed be a calamity to the bee-keepers of the United States. The sending of queens by mail has grown to be a large and important industry. Anywhere from five to ten thousand dollars' worth of queens are sold in a single season in this country alone. Great good results in the interchange of stock, and without this interchange there would very soon be inbreeding.

Our older readers will remember that there was a time when queens were debarred from the mails, simply because one ignoramus of a bee-keeper attempted to send a queen and some bees in a flimsy paper box. Of course, the box broke and let the angry bees out into one of the important offices of the service. The result was that Uncle Sam shut down on sending any more queens through the mails, and we all had to send queens by express at a charge of from 15 cents to \$1.00. These charges, for the time being, killed the industry. I wonder if another ignoramus has tried sending bees or queens in another paper box, or doing something else equally foolish. It would be interesting to know why the Government should be talking at this time about "excluding queens from the mails." Bee-keepers have enjoyed the privilege for the last

15 years, and we were not aware that there had been any trouble since the paper-box incident.

It was Prof. A. J. Cook who made a special trip to Washington to get the queens readmitted to the mails, and he was successful; but the condition was made that there should be two sheets of wire-cloth over the opening to the cage. But in later years bee-keepers have, instead of two sheets, used one, and a thin strip of board over the wire. This conforms to the spirit of the law—in fact, is better than the two pieces of wire-cloth.

#### WORK FOR THE NEW UNION.

The United States Bee-Keepers' Union, recently organized, has been advised of this matter; and as a member of the Board of Directors, I feel sure it will take energetic and prompt action. But in order to accomplish much in this or any other direction there must be more means and more funds at the disposal of the General Manager, Mr. Secor. Under the circumstances, the new organization has made a good start; but it needs something more than a good beginning to do the work that it has laid out for itself. Bee-keepers everywhere who are interested in seeing that queens are not shut out from the mails, in fighting dishonest commission men, in coping with the adulteration evil—in fact, in any and every thing that needs intelligent and organized effort, should send in their names, accompanied by \$1.00, at once to the General Manager, Eugene Secor, Forest City, Iowa, or to the Secretary, Dr. A. B. Mason, Station B, Toledo, Ohio. If more convenient, the money may be sent to George W. York, 118 Michigan Street, Chicago, or to this office, and we will see that the money is duly forwarded; and the persons enrolled as members. Remember, the amount is \$1.00. This entitles you to all the privileges of the organization, and allows you to have a voice in certain matters at the annual meeting, whether you are present or not.

We are glad the New Union has taken hold of this matter promptly, for we are sure that when the Postmaster General finds that bee-keepers have an organization that looks after all their interests, he will be only too glad to see that there is no interference with so needful and rightful a thing as the permission of queen-bees through the mails, as has been the practice for so many years.

As Chairman Root says, to exclude queen-bees from the mails would be a serious blow to the onward progress of improved bee-culture in this country, and certainly a wise Postmaster General will not unnecessarily injure so useful and honorable an industry.

Bee-keepers will readily see that in order for the New Union to properly look after their interests, they must become members of it. This they should do at once, for certainly it is not fair that a very few should bear the expense of work which is for the benefit of all.

## The Weekly Budget.

MR. J. T. JONES, of Maryland, when renewing his subscription wrote: "The 'Old Reliable' is a welcome weekly visitor, and when it fails to show up it will be when I can no longer raise the wherewithal."

MR. L. M. WILLIS, of Clark Co., Wis., was recently elected for the fourth term to the position of Town Clerk. This shows what the folks that know him best think of him. He evidently doesn't belong to the class that "are without honor save in their own country."

MR. THOS. EVANS, of Lansing, Iowa, is now advertising his process of sheeting wax for making comb foundation. Unfortunately, in the first appearance of his advertisement in the Bee Journal last week we had his address printed "Lansing, Mich." It should have been *Lansing, Iowa*.

MR. I. J. STRINGHAM, of New York State, writing us April 22, said:

"The reports from everywhere seem to indicate a big honey crop. We had lots of snow, and that usually means lots of clover, which is coming right along now. Everybody is buying supplies, which is another good sign."

MR. A. Y. BALDWIN, of DeKalb Co., when sending in his dollar for membership in the New Union, had this to say:

"Here is my dollar for the New Union, and my best wishes go with it, and all else that I can do to promote its best interests. May you and the Union be prompted in any way to put down any fraud or dishonest person or corporation to the lowest notch possible."

MR. J. E. POND—of our "Question-Box" force—wrote thus April 22:

"EDITOR YORK:—The season here seems to open well, and if everything keeps up as it has, it will be favorable for a honey crop. But, then, we don't produce much honey here, anyhow. I am pleased to see that the American Bee Journal keeps on in the old line, and abreast of the times. This is to be expected, of course, but still you are entitled to thanks for your efforts. I appreciate your work."

MRS. N. L. STOW—a successful bee-keeper about 10 miles north of Chicago—is still "Mrs. Alderman Stow," as Mr. S. was lately re-elected alderman for his ward in the Evanston city council. But that doesn't mean that he is "Stow-ed away" in a cozy place, for to be the right kind of an alderman in a thriving city like cultured Evanston, is no "soft snap." And Mr. Stow will be the "right kind," every time. But if he should get cantankerous, Mrs. S. can easily turn the bees loose on him, and make him into a big "pin-cushion!"

MR. W. L. PORTER, Vice-President of the Colorado State Bee-Keepers' Association, wrote us from Arapahoe county, April 27:

"The bees are all right so far, and we are in hopes we will not have the trouble we had last year. The Denver market is bare of extracted honey, but there are quantities of the adulterated stuff."

Better try to get an anti-adulteration law in Colorado, and then all your bee-keepers join the New Union, and it will help you enforce the law.

#### Now for New Subscribers for the rest of 1897:

We would like to have each of our present readers send us at least one new subscriber for the Bee Journal before June 1, 1897. That surely will not be hard to do, when they will need to pay only 60 cents for the rest of this year. That is about 8 months, or only 7½ cents a month for the weekly American Bee Journal. Any one with only a colony or two of bees should jump at such an offer as that.

Now, we don't ask you to work for us for nothing, but will say that for each new 60-cent subscriber you send us, we will mail you your choice of one of the following list:

Wood Binder for the Bee Journal.....	20c.
50 copies of leaflet on "Why Eat Honey?".....	20c.
50 " " on "How to Keep Honey".....	20c.
50 " " on "Alsike Clover".....	20c.
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1 copy each "Preparation of Honey for the Market" (10c.) and Doolittle's "Hive I Use" (5c.).....	15c.
1 copy each Dadants' "Handling Bees" (8c.) and "Bee- Pasturage a Necessity" (10c.).....	18c.
Dr. Howard's book on "Foul Brood".....	25c.
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Our Poultry Doctor, by Fanny Field.....	25c.
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Green's Four Books on Fruit-Growing.....	25c.
Ropp Commercial Calculator No. 1.....	25c.
Silo and Silage, by Prof. Cook.....	25c.
Bienen-Kultur [German].....	40c.
Kendall's Horse-Book [English or German].....	25c.
1 Pound White Clover Seed.....	25c.
1 " Sweet ".....	25c.
1½ " Alsike ".....	25c.
1½ " Alfalfa ".....	25c.
1½ " Crimson ".....	25c.
Queen-Clipping Device.....	30c.

We make the above offers only to those who are now subscribers; in other words, no one sending in his own 60 cents as a new subscriber can also claim a choice of the above list.

**Every Present Subscriber** of the Bee Journal should be an agent for it, and get all others possible to subscribe for it. See offer above.

# BEE-BOOKS

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**Bees and Honey**, or Management of an Apiary for Pleasure and Profit, by Thomas G. Newman.—This edition has been largely re-written, thoroughly revised, and is "fully up with the times" in all the improvements and inventions in this rapidly-developing pursuit, and presents the apiarist with everything that can aid in the successful management of an apiary, and at the same time produce the most honey in an attractive condition. It contains 250 pages, and 245 illustrations—is beautifully printed in the highest style of the art, and bound in cloth, gold-lettered. Price, \$1.00.

**Langstroth on the Honey-Bee**, revised by Dadant—This classic in bee-culture, has been entirely re-written, and is fully illustrated. It treats of everything relating to bees and bee-keeping. No apiarian library is complete without this standard work by Rev. L. L. Langstroth—the Father of American Bee-Culture. It has 520 pages; bound in cloth.

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**Bee-Keepers' Guide**, or Manual of the Apiary, by Prof. A. J. Cook, of the Michigan Agricultural College.—This book is not only instructive and helpful as a guide in bee-keeping, but is interesting and thoroughly practical and scientific. It contains a full delineation of the anatomy and physiology of bees. 460 pages; bound in cloth and fully illustrated.

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**Convention Hand-Book**, for Bee-Keepers, by Thomas G. Newman.—It contains the parliamentary law and rules of order for Bee-Conventions—also Constitution and By-Laws, with subjects for discussion, etc. Cloth, gold-lettered. Price, 25 cts.

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**Foul Brood**, by A. R. Kohnke.—Origin, Development and Cure. Price, 25 cts.

**History of Bee-Associations**, and Brief Reports of the first 20 conventions. Price, 15 cts.

**Honey as Food and Medicine**, by T. G. Newman.—A 32-page pamphlet: just the thing to create a demand for honey at home. Should be scattered freely. Contains recipes for Honey-Cakes, Cookies, Puddings, Foam, Wines, and uses of honey for medicine.

Prices, prepaid—Single copy, 5 cts.; 10 copies, 35 cts.; 50 for \$1.50; 100 for \$2.50; 250 for \$5.50; 500 for \$10.00; or 1000 for \$15.00.

When 250 or more are ordered, we will print the bee-keeper's card (free of cost) on the front cover page.

**Bee-Keeping for Profit**, by Dr. G. L. Tinker.—Revised and enlarged. It details the author's "new system, or how to get the largest yields of comb or extracted honey." 50 p.; illustrated. 25c.

**Emerson Binders**, made especially for the **BEE JOURNAL**, are convenient for preserving each number as fast as received. Not mailable to Canada. Price, 75 cts.

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**Poultry for Market and Poultry for Profit**, by Fanny Field.—Tells everything about the Poultry Business. 64 pages. Price, 25 cts.

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**Hand-Book of Health**, by Dr. Foote.—Hints about eating, drinking, etc. Price, 25 cts.

**Bee-Keepers' Directory**, by H. Alley.—Latest methods in Queen-Rearing, etc. Price, 50c.

## Book Clubbing Offers.

(Read Carefully.)

The following clubbing prices include the American Bee Journal one year with each book named. Remember, that only ONE book can be taken in each case with the Bee Journal a year at the prices named. If more books are wanted, see postpaid prices given with the description of the books on this page. Following is the clubbing-list:

1. Langstroth on the Honey-Bee.....\$2.00
2. A B C of Bee-Culture..... 2.00

3. Bee-Keeper's Guide.....	1.75
4. Bees and Honey [Cloth bound].....	1.65
5. Doolittle's Scientific Queen-Rearing.....	1.75
6. Dr. Howard's Foul Brood Book.....	1.10
7. Advanced Bee-Culture.....	1.30
8. Bienen-Kultur [German].....	1.20
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29. Winter Problem in Bee-Keeping.....	1.30
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32. Bee-Keepers' Directory.....	1.30

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Mention the American Bee Journal.

## General Items.

### Good Outlook—Fly-Paper.

I have 56 colonies of bees in very good condition. I had 60 in the fall, but some were not very strong, and I have been doubling up. They commenced to bring in pollen Feb. 15. The outlook for a honey harvest is good.

Was there a recipe published in the Bee Journal telling how to make fly-paper? I have looked all day through the back numbers, and have failed to find it. I want fly-paper to catch roaches and wasps. They are very numerous here and troublesome.

(REV.) JAMES G. TETER.

McMin Co., Tenn., April 1.

[In 1894, we published the following directions for making fly-paper, which first appeared in the Progressive Bee-Keeper, from the pen of the late Mrs. A. L. Hallenbeck:—EDITOR.]

Take one pint castor-oil;  $\frac{1}{2}$  pint of honey, and  $1\frac{1}{2}$  pounds of resin. Heat the oil and honey together; when hot, add the resin; stir till all is dissolved and thoroughly mixed. Spread on paper, and place where flies congregate. It makes no mess, and all flies stick fast. Two sheets of paper may be placed together, and when wanted, pulled apart by warming a little by the fire. It will not dry up for a long time. Enough may be prepared at a time to last all the season. The preparation can be kept in any covered dish, and used when wanted.

### Experience in Shipping Honey.

Years ago I shipped 1,000 pounds of honey by freight to a commission house. A few days after I received a letter that the honey was received, but in a dreadfully bad shape, broken and leaking, and all smeared over with honey; they would have an awful time to fix it up for sale, but would do the very best they could for me; they were sorry for me, as the railway hands are so careless in handling freight. Well, I had a brother-in-law living in the same city, so I wrote him thus:

"DEAR BROTHER:—Go to the commission house of Messrs. So-and-so, and take their letter and the order I send you, and take all the broken honey and use it in your family. If there is more than you can use, give the balance to the rest of our friends," etc.

He wrote me thus: "I went to see the parties; there were a few cases of honey on the ground floor. I was looking at it when one of the firm came to me and asked me if I wanted honey. I told him I was only looking at it. It was very nice. 'Do you deal largely in honey?' I asked."

"Yes, sir; we get it by the carload from California. Come upstairs and I'll show you a fine lot we got in a few days ago."

"Well, isn't that a fine lot?" "Yes, sir."

"Where did you get that from?"

"We got that from a man named J. T., in the southeastern part of Minnesota."

"Don't it get broken up very badly shipping it so far?"

"No, sir; there was not a single crate in the whole lot broken."

My brother-in-law put his hand in his pocket, took out their letter, and said: "Please read this."

Judge of his surprise. "Well," he said, "I don't understand this. Let us go down below."

His partner was sitting at the desk; he handed him the letter, and said, "How is this?"

"O that miserable clerk made the mistake. It was another man's honey that was broken!"

They were to hold this honey at  $12\frac{1}{2}$  cents per pound. When I went to see them they had sold all the white honey, and it netted me 9 cents, so they beat me after all.

I shipped 500 pounds to another commission man in the same place. After he had the

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### Couldn't Do Without It.

I have clipped 19 queens, and must say the Monette Queen-Clipping Device is by far the best invention ever made, and will be welcome to many bee-keepers as it was to me. I could not do without one now.

DR. GEO. LACKE, Newburgh, Ind.

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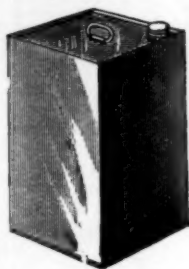
Send us *just one new name* for the American Bee Journal a year (with \$1.00), and we will mail you the Queen-Clipping Device **FREE** of charge. Or, the Queen-Clipping Device will be sent postpaid for 30 cts. But why not get it as a Premium by the above offer? You can't earn 30 cts. any easier. Almost every bee-keeper will want this Device.

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honey for some time, he wrote me that the honey market was improving; he would soon close out what he had at 12½ cents. He said: "I want you to ship me some more honey right away, as I can get you 12½ cents." But I did not send any. He wrote me a second time to ship him more honey. I had other business that called me there, so I dropt into his place of business. Real glad to see me. "Brought me some more honey?" "No." He had one 12-pound crate left, and said, "Well, we will settle for this lot first." After taking freight and commission out, I had 8 cents left. I remonstrated with him, and said, "Here's your letter." But all to no purpose. Well, he paid me, but he would not pay me for the one crate that was left until it was sold, so I took it away. He then asked me to ship him some more, and I asked him if he thought me a fool, and he laughed heartily.

I put away 84 colonies of bees last fall, and had to feed several colonies. We had a very poor honey-flow last year, and no fall honey. We had about one-third of a crop. The queens quit laying early, so the colonies are not extra strong, but of those I fed, the queens started laying, and I think they will come out the best of the lot. The basswood was the most promising I ever saw, but the hot, dry weather blighted the bloom, so we did not get any honey from it at all.

JOHN TURNBULL.

Houston Co., Minn.

**Yellow Locust—Honey-Plants.**

Referring to the query of P. I. Huffman, on page 156, concerning the value of yellow locust in bee-culture, I would call attention to the fact that Frank Benton, in his "Manual on the Honey-Bee," ranks the locust (common, black or yellow) of first importance. This yellow locust (*Robinia Pseudacacia*) abounds in this part of the country, and is of more service to the honey-bee north of the 30th parallel of latitude than south, blossoming there in April and May, while in the region of Philadelphia (40th parallel), it blossoms in May and June. He says:

"Of these which may be cited as the chief sources of honey and pollen in the North [that is north of 40th parallel] the tulip tree, locust, white clover, alfalfa, melilot, linden and buckwheat furnish most of the surplus honey."

And after reciting the importance of such trees and plants as willows, elder, maples, dandelion, chestnut, linden or basswood, Indian corn, buckwheat, fireweed, willow-herb, knotweeds, mints, cleome, golden-rods, Spanish-needles and asters (especially heath-like aster), he says:

"Some of the clovers, mustard, rape, cultivated teasel, barberry, sumac, coral-berry, pleurisy-root, fireweed, borage, etc., tho yielding well, are only found abundantly over certain areas, and do not therefore supply any considerable portion of the honey that appears on the market, tho, when any of them are plentiful in a certain locality, the bee-keeper located there will find in nearly all cases that the surplus honey is increased thereby."

This lengthy quotation, altho not bearing directly on the question as put, I believe will be helpful to many like persons who have not had the opportunity to observe the habits and wanderings of the bee in its pursuit for nectar. I understand our mission is to help those who help themselves, and be helped in return.

JOHN WILCOX.

Philadelphia Co., Pa.

**A Shade for Bee-Hives.**

Within the last two years I have been reading the Bee Journal with much interest. I have frequently seen where the question was asked as to the best plan to shade the hives in hot weather. As I have been a carpenter and joiner for the last 20 years, and naturally of an inventive turn of mind, I think that I can now describe a shade top that will meet the approval of all. Besides its simplicity and cheapness of con-

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producing a constant sense of security, ready for all emergency cases of sudden illness, particularly in the country home far away from the physician and the drug store should be kept a bottle of that favorite remedy

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**W. B. House, Drawer 1, Detour, Mich.**

15Atf Please mention the Bee Journal.

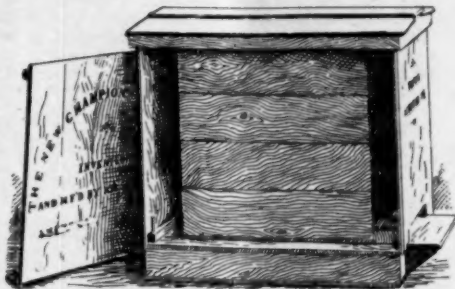
## BE CONVINCED, AND GET YOUR MONEY'S WORTH

We offer the **New Champion Double-Walled Chaff Hive**, made of the Best White Pine Lumber, from now until June 15, 1897. Complete and Painted, with Dovetail Body and Two Supers or Comb Honey or Extracting; 8, 9 or 10 frame hive, with Thick Top, Self-Spacing Hoffman Frames, including 2 or 4 folded Tin Rabbets, Tin Cover and Double Bottom—all for only \$1.50. The same in the Flat for 98 cents; and if Outside Summer and Winter Case is wanted only, complete and painted, to fit any Dovetail or Simplicity 8, 9 or 10 frame hive, for 93 cents; and the same in the Flat for 73 cents. Inside measurement of Case 25x20 inches, and 21 inches high. We solicit your orders.

We deliver all goods f. o. b. cars or boat landing at Sheboygan, Wis. Address,

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Extracted Honey Wanted—Make Offers.



## RAILROAD LANDS

For Sale at Low Prices and on Easy Terms.

The Illinois Central Railroad Company offers for sale on easy terms and at low prices, 150,000 acres of choice fruit, gardening, farm and grazing lands located in

## SOUTHERN ILLINOIS.

They are also largely interested in, and call especial attention to the 600,000 acres of land in the famous

## YAZOO VALLEY OF MISSISSIPPI

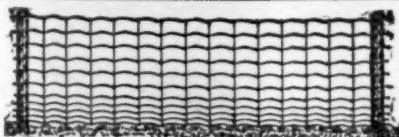
lying along and owned by the Yazoo & Mississippi Valley Railroad Company, and which that company offers at low prices and on long terms. Special inducements and facilities offered to go and examine these lands, both in Southern Illinois and in the "Yazoo Valley," Miss. For further description, map, and any information, address or call upon E. P. SKENE, Land Commissioner, No. 1 Park Row, Chicago, Ill. SE6t

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**WOVEN WIRE FENCE**

Best on Earth. Horse-high, Bull-strong, Pig and Chicken-tight. With our **DUPLEX AUTOMATIC** Machine you can make 60 rods a day for **12 to 20 cts. a Rod.** Over 50 styles. Catalogue Free. **KITSELMAN BROS.,** Box 138, Ridgeville, Ind.

48Kt Mention the American Bee Journal.



## 3 Grand Letters 3

In the April "Hustler," one from a despondent agent in Oregon to a successful California agent. He being out canvassing his wife, also a "Page enthusiast," answers the letter, sending copy to her husband, who supplements with one of his own and sends us copies of all three. If interested in fencing, send for free copy.

**PAGE WOVEN WIRE FENCE CO., Adrian, Mich.**

Mention the American Bee Journal.

## I ARISE



TO SAY to the readers of the **BEE JOURNAL** that **DOOLITTLE**

has concluded to sell **BEES and QUEENS**—in their season, during 1897, at the following prices:

One Colony of Italians on 9 Gallip frames, in light shipping-box	\$6.00
Five Colonies.....	25.00
Ten Colonies.....	45.00
1 untested queen.....	1.00
6 " queens.....	5.50
12 " ".....	10.00
1 tested Queen.....	\$1.50
3 " Queens.....	3.50
1 select tested queen.....	2.00
3 " Queens.....	4.00

Select tested queen, previous season's rearing... 4.00  
Extra Selected for breeding, THE VERY BEST... 5.00  
About a Pound of BEES in a Two-frame Nucleus, with any Queen, \$2.00 extra.

Circular free, giving full particulars regarding the Bees and each class of Queens. Address

**G. M. DOOLITTLE,**

11A25t BORODINO, Onon. Co., N. Y.

## —A GENUINE— Egg Preservative

That will keep Hen's Eggs perfectly through warm weather, just as good as fresh ones for cooking and frosting. One man paid 10 cents a dozen for the eggs he preserved, and then later sold them for 25 cents a dozen. You can preserve them for about 1 cent per dozen. Now is the time to do it, while eggs are cheap.

Address for Circular giving further information—

**Dr. A. B. MASON,**

3512 Monroe Street, TOLEDO, OHIO.

Mention the American Bee Journal.

## Our '97 Catalog

—OF—

**Apiarian Supplies, Bees, Etc.**

is yours for the asking. It is full of information. Write for it.

**L. J. STRINGHAM,**

105 Park Place. NEW YORK, N. Y.

APIARY—Glen Cove, L. I.

## EVAN'S Improved Machine for Sheeting Wax.

This machine produces a continuous sheet of uniform thickness and any width desired directly from the melted wax. No lapping or welding done in this process. This machine is a rapid worker, simple in construction, easily operated either by hand or steam power, and price within reach of any supply dealer. Correspondence solicited. Sample sent on receipt of order and postage. Patent allowed March 18, 1897. **THOS. EVANS, Lansing, Iowa.**

Mention the American Bee Journal.

struction, I think it as durable and perfect a shade in all respects as could be desired. I used it in my apiary last season, and find it a success, besides adding a finer appearance to the apiary. It is made as follows:

Take what we term barn-siding boards (pine), 12 feet long, 13 inches wide, and cut them into four pieces, 3 feet each. Be careful to saw them square, and all of the same length. Then gauge one edge on the rough side  $\frac{1}{4}$  of an inch, and plane it down to a bevel. When this is done, place the beveled edges of two boards together, which forms a cottage roof with a pitch of 3 inches to the foot. Nail the two edges together in that shape, by nailing from both ways. Then take a common plastering lath, cut it in the center, nail one strip on each gable end at the bottom, and it is complete.

Now place this on the hive, and you will at once see that it fills the bill, as it will fit any hive without having to lay stones or other weights on it to make it stay. Besides, it leaves an air-space above the top of the hive, and it can also be shoved forward as far as desired, so as to shade the entrance.

When not in use they can be piled up in a compact shape, as they will nest together as compactly as pie-pans.

They can be made shorter or longer, as desired; and if they are properly cared for they will last as long as the hives will last. Anybody can make them. Besides, it requires only 6 feet of lumber, one lath, and a dozen small nails to make one, which will make them cost about 10 cents each. They will last a lifetime, and are always ready when needed. It does not require the best grade of lumber to make them, and the top side can be painted if desired.

I find them indispensable in stormy weather, always keeping the hives dry and well protected. They can also be put on or taken off of the hive at any time without jarring or disturbing the bees in the least. I am sure that all who try this plan for a shade and storm protector will find it a good thing.

C. S. FRENCH.

Todd Co., Minn.

## Price and Value of Honey.

As the principles which govern price in all salable commodities are alike, and the same factors go to produce it, a raw recruit to the rank of bee-men may be as capable of its treatment as the old hands; and the 17th of March is a very appropriate date for one of Irish race and rearing to write his first contribution.

My first observation is that those who have been discussing it have been misusing terms, especially that of price. The price of honey is exactly that amount of money it will fetch in the market. The question as to the relative usefulness as food on the table and for other uses is one of value and not price. The third point is the relative cost of production of the comb honey and extracted. The price of honey is exactly that sum which the honey-producer can get for his product, be it either in the comb or out of it. The fact of what ratio the price of the two sorts bears to the other, is independent of cost of production, except as it affects their production; and nutritive value is very little thought of by most consumers. In fact, price is without doubt governed by supply and demand, which is dependent upon the manner in which the honey-producers conduct their business; also the habits of the mass of consumers—the public—in relation to the consumption of honey, and the relative growth of consumption and production.

As a new producer, I expect to at least make the effort to cause as much increase in consumption as my product will amount to. I feel sure that this is still easy to achieve in almost every city, for my experience on both sides of the Atlantic is that honey is seldom on the table, or used in the cooking, of those who are quite in position to use it as largely as they choose.

This matter of what foods are eaten in quantity is largely one of hereditary habit. There is no good reason like classes in England Wales eat great quantities of cheese,




**KEYSTONE**  
**WOVEN WIRE FENCE**  
will keep your stock in and your neighbor's out. Stray Hogs, Cattle, Horses or Sheep cannot destroy your crops when you fence with the **KEYSTONE**. 25 to 33 inches high. Send for **free book on fence construction**.  
**KEYSTONE WOVEN WIRE FENCE CO.,**  
No. 3 Rush St., Peoria, Ill.  
*Mention the American Bee Journal.*

## EGGS

From Pure B. P. Rocks, Black Minorcas, Light Brahmas—\$1.25 per Sitting. Also, will stuff and mount Birds and Animals to order; price, for small birds and animals 60c. and upward.

**Plants for sale cheap**—Red and Black Raspberry, and Strawberry.

**MRS. L. C. AXTELL,**  
ROSEVILLE, WARREN CO., ILL.



**BIG MONEY IN POULTRY**  
Pet Stock and Incubators if conducted according to **"The Chautauqua Guide to Big Profits"** just out and sent postpaid with our 1907 Catalogue for 4c to help pay postage, etc. Best eggs and stock cost no more if purchased of us, you can then sell your product to us and thousands others for high fancy prices. We own 300 acres most elegantly adapted to poultry.  
**PET STOCK FARM, Box 17, KENNEDY, N.Y.**  
7A13 *Mention the American Bee Journal.*

## PAID FOR Cash Beeswax

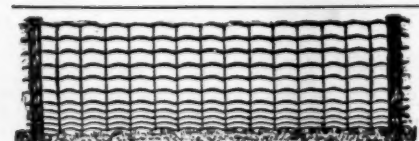
For all the **Good, Pure Yellow Beeswax** delivered to our office till further notice, we will pay 24 cents per pound, **CASH**; or 28 cents for whatever part is exchanged for the Bee Journal, Honey, Books or Seed, that we offer. If you want **cash, promptly**, for your Beeswax, send it on at once. Impure wax not taken at any price. Address as follows, very plainly,

**GEO. W. YORK & CO.**  
118 Michigan st., CHICAGO, ILL.

**BEES QUEENS**  
Smokers, Sections, Comb Foundation, and all Apisidra Supplies cheap. Send for **FREE catalogue.** **E. T. FLANAGAN, Bellefonte, Ill.**  
13A13t *Please mention the Bee Journal.*

**50 Colonies Bees for Sale Cheap.**  
**2-frame Nucleus, with Queen, only \$2.**  
B. P. Rocks, White Leghorns, B. Leghorns, Black Minorca, Buff Cochins, Part. Cochins, L. Brahma, S. S. Hamburg—Eggs from all these, 15 for \$1.00.

Also, Berkshire Pigs for sale. Write for what you want. Stock all registered pedigree.  
**N. H. SMITH, Lock Box A,**  
18A4t **TILBURY, ONT., CANADA.**



**Flood Sufferers—Attention.**  
Those who are so fortunate as to have **Page** fence in use will usually find it intact after the waters subside. If the posts are washed out, it will need re-stretching, and you should notify us at once. See April "Hustler" for latest flood test.  
**PAGE WOVEN WIRE FENCE CO., Adrian, Mich.**

while in Ireland they eat scarcely any. To change this fact and cause the Irish, who could afford it, to eat much more cheese, would take great energy, good persistent business methods, and a great quantity of first-class cheese. It is just the same with the consumption of honey everywhere—it must be kept before the people in attractive shape and good quality; must be forced into homes where it has not been used, and consumption increase in this way, or the price of both kinds will fall.

Weld Co., Colo. W. A. VARIAN.

### Sudden Change in Temperature.

Bees in this locality went into winter quarters in fairly good condition, excepting perhaps a little light in stores, owing to the early frost last fall, and having a mild winter they probably consumed more. Well, everything went well until April 18, which was very warm, and the bees were out in full force, when along about 2 p.m. the wind arose and blew so hard that what bees were any distance from home could not reach their hive that night, and before morning the wind shifted in the north, the temperature dropt to 10 degrees above zero, the weather remaining cold for four days. I noticed wherever a poor bee could find shelter, under lumber, pieces of bark, etc., I could find from three to five dead bees, which materially thinned out each colony, and there has been only one day to this date that they have been out to amount to anything.

Bees are chiefly wintered on the summer stands and in the Hilton chaff hive. The principal source of honey is from white clover and basswood, with golden-rod and willow-herb later in the season. There is no provision made here for bee-pasturage; there are thousands of acres of land that have been lumbered and burnt over, which could easily be seeded to sweet clover, or some other honey-producing plant, with a small expenditure. The country is too new for there to be much fruit for the bees to "destroy!"

I have only one fault to find in the Bee Journal, and that is, it doesn't come often enough.  
**L. T. CHURCHILL,**  
Cheboygan Co., Mich., April 27.

### Heavy Loss in Wintering.

I have sustained a very heavy winter loss, having lost a little over 50 per cent. of my bees. I now have about 70 colonies with which to commence the season. My bees were nearly all wintered on the summer stands without protection. Ten colonies which were well protected came out in splendid condition. I have lost a good many by spring dwindling.

I am not discouraged by my loss, but shall try to make the bees that I have left do nearly as much as all would have done. Everything looks favorable for a good season in this locality at present.

Success to the American Bee Journal. It never fails to arrive on time, and is full of good reading.  
**G. F. TUBBS.**

McKean Co., April 25.

### Bees Lively on Maple and Elm.

I put the rest of my bees out April 15—no dead ones in the last lot. The weather was cold until the 21st; on the 20th it was 18 degrees above zero in the morning; yesterday it was 75 degrees at noon. Bees are lively on maple and elm. Their old honey is mostly granulated, and most of it is being thrown out. We commenced spring seeding day before yesterday; it was not fit before.  
**C. THEILMANN,**  
Wabasha Co., Minn., April 23.

Please Send Us the Names of your neighbors who keep bees, and we will send them sample copies of the **BEE JOURNAL**. Then please call upon them and get them to subscribe with you, and secure some of the premiums we offer.

## \* TO BE HUNG! \*

OUR SHINGLE is now hung out, notifying the public that we are again **ready to ship Queens**. Having greatly enlarged our facilities, can fill orders by return mail.

**Golden Beauties, 3 Band Italians**  
**Also Silver-Gray Carniolan.**

Warranted Queen, 50c.; Tested, 75c. Make Money Orders payable at Caldwell, Tex. Send for Catalog of **Bee-Keepers' Supplies**.

Address, **C. B. BANKSTON,**  
11A1f **CHRIESMAN, Burleson Co., TEX.**  
*Mention the American Bee Journal.*

## SMOKERS and FOUNDATION

We do not catalog the Quinby or Hill Smokers this year, but there may be some who prefer these styles. We still have a few, and offer them at these special prices to close out:


The Quinby—2-inch barrel, single-blast, 35c.; postpaid, 50c. 2½-inch, double blast, 60c.; postpaid, 75c.

The Hill—3-inch barrel. 40c.; postpaid, 60c.

### VanDusen Thin Flat-Bottom Fdn.

In 25-pound boxes, at only \$10.50 per box, while it lasts. Address,

**THE A. I. ROOT CO.,**  
118 Michigan St., CHICAGO, ILL.



**ONE MAN WITH THE UNION COMBINATION SAW**  
Can do the work of four men using hand tools. In Rippling, Cutting-off, Mitring, Rabbeting, Grooving, Gaining, Dadoing, Edging-up, Jointing Stuff, etc. Full Line of Foot and Hand Power Machinery. Sold on Trial. Catalogue Free.

**SENECA FALLS MFG. CO.,**  
48 Water St. SENECA FALLS, N. Y.  
1A1y *Mention the American Bee Journal.*

## BEST ON EARTH!!

18 years the Standard. The 4-inch "Smoke Engine." Is it too large? Will it last too long? Will save you lots of money and bad words. Send for Circular. 6 sizes and prices of Bingham Smokers and Knives.

**T. F. BINGHAM, Farwell, Mich.**  
5A1f *Mention the American Bee Journal.*

## Early Italian Queens!

Untested, 75c.; Tested, \$1.25. Nuclei, 2 frame, \$2.00, including a good Queen. Bees by the Pound.

**E. L. CARRINGTON,**  
5A17t **De Funiak Springs, Fla.**  
*Mention the American Bee Journal.*

**Golden Adel Albino** **Texas Queens!**  
Dr. Gallup says they are the best he has in his yard.  
**J. D. GIVENS, Lisbon, Tex.**  
Mention the Bee Journal. 9A26t.

**ROOT'S GOODS** Get discounts on early orders for 1897. A. I. Root Co.'s Bee-ter prepared than ever to fill orders promptly. 36-page Catalog free.  
**JOHN NEBEL & SON, High Hill, Mo.**  
Mention the American Bee Journal. 4A1f

## BEE - KEEPERS, PRICES CUT

On **FOUNDATION COMB** to introduce **Forrest New Method of Sheeting Wax** by Automatic Machinery.

Write for descriptive Circular Price-List and Samples. **N. B. FORREST,**  
15A1f **AUBURN, N. Y.**  
*Mention the American Bee Journal.*

## HONEY and BEESWAX MARKET QUOTATIONS.

**Chicago, Ill., May 1.**—Fancy white, 11@12c.; No. 1, 10@11c. fancy amber, 8c.; No. 1, 7c.; fancy dark, 8c.; No. 1, 7c. Extracted, white, 5@7c.; amber, 5@6c.; dark, 4@5c. Beeswax, 25@27c.

Stocks are working down, but there is no improvement in price. The season for comb honey is drawing to a close. Any one intending to market in the cities should do so now.

**New York, N. Y., May 1.**—White comb, 10@11c.; amber, 8@9c.; dark, 6c. There is a fairly good demand for comb honey yet, and it keeps coming in small lots. Extracted is quiet at unchanged prices. The demand for buckwheat extracted has ceased, and no more sale for it. Beeswax is quiet at 26@27c.

**Detroit, Mich., May 1.**—Fancy white comb, 11@12c.; No. 1, 10@11c.; fancy amber, 9@10c.; No. 1, 8@9c.; dark, 7@8c. Extracted, white, 5@6c.; amber, 4@5c.; dark, 4c. Beeswax, 25@26c. Demand is slow for honey, and plenty in commission house.

**Kansas City, Mo., May 1.**—No. 1 white, 12@13c.; fancy amber, 11@12c.; No. 1 amber, 10@11c.; fancy dark, 9@10c. No. 1 dark, 8@9c. Extracted, white, 5c.; amber, 4@5c.; dark, 4c. Beeswax, 25c.

**Cincinnati, Ohio, May 1.**—Demand is slow for all kinds of honey. Comb honey, 10@14c. for fair to choice white; extracted, 3@4@6c. There is a fair demand for beeswax at 22@25c. for good to choice yellow.

**Minneapolis, Minn., May 1.**—Fancy white, 11@12c.; No. 1 white, 10@11c.; fancy amber, 9@10c.; No. 1 amber, 8@9c.; fancy dark, 7@8c.; No. 1 dark, 6-7c. Extracted, white, 6@7c.; amber, 5@5@4c.; dark, 4@5c. Utah white extracted, 5@5@4c. Beeswax, 23@26c. Market fairly steady for comb and better for extracted than for some time.

**Philadelphia, Pa., May 1.**—Fancy white comb, 12-13c.; fancy amber, 8-9c.; No. 1, 8c.; fancy dark, 7-8c. Extracted, white, 5-7c.; amber, 4-5c.; dark, 3@4c. Beeswax, 25c. Season is getting over for comb honey—very little demand. Extracted in good demand.

**San Francisco, Calif., May 1.**—White comb, 9-10c.; amber, 5-7c. Extracted, white, 5@6c.; light amber, 3@4c.; dark tulo, 2@3c. Beeswax, fair to choice, 24-26c.

**St. Louis, Mo., May 1.**—Fancy comb, 12@13c.; No. 1 white, 11@11@4c.; amber, 9@10@4c.; dark, 7@8@4c. Extracted, white, in cans, 6@7c.; amber, in barrels, 4@4@4c.; extra, 5c.; dark, 3@4c. Good demand for barrel stock—comb slow sale. Beeswax, 23@23@4c.—prime finds ready sale at 23@4c.

**Albany, N. Y., May 1.**—Fancy white, 12-13c.; No. 1, 11-12c.; fancy amber, 9-10c.; No. 1, 8-9c.; fancy dark, 7-8c.; No. 1, 6-7c. Extracted, white, 5-6c.; dark, 3@4c. Demand is all that could be expected at this season. Stock on hand small.

**Indianapolis, Ind., May 1.**—Fancy white 14-15c.; No. 1 white, 12-13c. Extracted, white, 6-7c. Beeswax, 22-25c. Demand is fair for grades quoted, but no demand for inferior grades.

**Boston, Mass., May 1.**—Fancy white, 13-14c.; No. 1, 11-12c. Extracted, white, 6-7c.; amber, 5-6c. Beeswax, 25c.

**Buffalo, N. Y., Apr. 16.**—Very fancy honey, mostly 10 and 11c.; fair to good, from 9c. down to 7 and 8c.; very poor, dark etc., 5-7c. Very little, if any, extracted in the market to quote. Write us before shipping.

## Comb Foundation

And a full line of Bee-Keepers' Supplies in stock at reasonable rates.

**W. J. Finch, Jr., Chesterfield, Ills.**  
18A4f Mention the Am. Bee Journal

**A. P. A. may, or B. O. K.**  
OUR APARY is non-partisan and deals in strictly first class Italian Queens—Tested, 90c. Untested, 65c. 1-fr. Nucleus, 65c.; 2-fr. \$1.10—discount on quantities. M. O. office, Sparta, Tenn.  
**COOPER & GILBERT,**  
17A4t QUEBECK, TENN.

## List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

### Chicago, Ills.

R. A. BURNETT & Co., 163 South Water Street.

### New York, N. Y.

HILDRETH BROS. & SEIGELKEN,

### Kansas City, Mo.

C. C. CLEMOMS & Co., 423 Walnut St.

### Buffalo, N. Y.

BATTERSON & Co., 167 & 169 Scott St.

### Hamilton, Ills.

CHAS. DADANT & SON.

### Philadelphia, Pa.

WM. A. SELSER, 10 Vine St.

### Cleveland, Ohio.

WILLIAMS BROS., 80 & 82 Broadway.

### St. Louis, Mo.

WESTCOTT COM. CO., 213 Market St.

### Minneapolis, Minn.

S. H. HALL & Co.

### Milwaukee, Wis.

A. V. BISHOP & Co.

### Boston, Mass.

E. E. BLAKE & Co., 57 Chatham Street.

### Detroit, Mich.

M. H. HUNT, Bell Branch, Wayne Co., Mich.

### Indianapolis, Ind.

WALTER S. POWDER, 163 Mass. chusetts Ave

### Albany, N. Y.

CHAS. MCCULLOCH & Co., 380 Broadway.

### Cincinnati, Ohio.

C. F. MUTH & SON, cor. Freeman & Central Ays.

## Honey - Clovers !

We have made arrangements so that we can furnish seed of several of the Clovers by freight or express, at the following prices, cash with order:

	5lb	10lb	25lb	50lb
Alsike Clover.....	.70	\$1.25	\$3.00	\$5.75
Sweet Clover (white).....	.70	1.20	2.50	4.75
White Clover.....	.90	1.60	3.75	7.00
Alfalfa Clover.....	.80	1.00	2.25	4.00
Crimson Clover.....	.55	.90	2.00	3.50

Prices subject to market changes.

Add 25 cents to your order, for cartage, if wanted by freight.

Your orders are solicited.

**GEORGE W. YORK & Co.**  
CHICAGO, ILL.

**Spraying Simplified.**—One of the most ingenious contrivances in the line of Spraying apparatus that has been brought to our notice for a long time is the new Emulsion Sprayer made by the Deming Company, Salem, Ohio. Sprayers on the same principle are made by this company, both in Knapsack and Barrel type. Complete and explicit directions are furnished with each Emulsion Sprayer, so that anyone can understand its operations. An indicator with gauge plate shows the proportions of oil and water for various purposes. It is almost impossible to estimate the relative value of modern horticultural appliances such as this. The Deming Sprayers and Nozzles are favorably known everywhere, and can be purchased from dealers generally. Their catalogue is a veritable illustrated treatise on the subject of spraying. Send for one, and say you saw their advertisement in the American Bee Journal.

**Warner's Safe Cure.**—Dr. Austin Flint, late Professor in Bellevue Hospital Medical College, Fellow of New York Academy of Medicine, Honorary member of the State medical societies of New York, Virginia, Rhode Island, Massachusetts, etc., says, in speaking of Bright's Disease, or advanced kidney disease: "The minor effects are headache, loss of vision, impaired hearing, involuntary muscular twitching, cramps, drowsiness, vomiting and diarrhea." These are but some of the common symptoms of this malady, which accounts for Warner's Safe Cure curing so many diseases, but are symptoms of advanced kidney disorders.

## BEES & NUCLEI.

We can supply Good Full Colonies of Italian Bees in 10-frame Langstroth hives, and 3-frame Nuclei. They are in Lee Co., Illinois, 100 miles from Chicago. If you wish to buy, write us at once, as to what and how many you want, and we will quote you price.

**GEORGE W. YORK & Co.,**

CHICAGO, ILLS.

## FOR SALE AT A BARGAIN !!

A 2½-acre orange grove within the city limits of Montemorelas, Mexico; including an apiary of 35 colonies, and a flock of thoroughbred poultry; also present crop of fruit and vegetables. Place has a good house and is in first-class condition. Must sell on account of failure in health. Price, \$700. Terms if necessary. For particulars write—

**W. H. COVINGTON,**

17A4t MONTMORELAS, N. L., MEXICO.

## For Sale, Bees & Queens

Bees by the Pound, \$1.00. Queens \$1.00. Nuclei, 2-frame, with Queen, \$1.50; 1-frame, \$2.00. Also, **Barred & White Plymouth Rocks**, and **Silver-Laced Wyandottes** Eggs at \$1.00 per setting of 15. Address,

**Mrs. A. A. SIMPSON,**

16A13 SWARTS, GREENE CO., PA.

Mention the American Bee Journal.

## CARLOADS—



Of Bee-Hives, Sections, Shipping-Cases, Comb Foundation, and **Everything** used in the Bee-Industry.

I want the name and address of every Bee-keeper in America. I supply Dealers as well as consumers. Send for catalogues, quotations, etc. **W. H. PUTNAM,** RIVER FALLS, Pierce Co., Wis.

## For Sale, Choice Italian Bees.

Full Colonies at \$5.00; Nuclei, \$1 per Frame.

—Queens in Their Season.—

Also a Full Stock of the

**B. Taylor Handy BEE-KEEPERS' SUPPLIES.**

Send for Catalog, to—

**F. A. CROWELL, Granger, Minn.**

17A4t Please mention the Bee Journal.



## SEE THAT WINK !

Bee - Supplies! Root's Goods at Root's Prices.

**Powder's Honey - Jars,** and every thing used by bee-keepers. Prompt service, low freight rate. Cat. free. **Walter S. Powder,** 162 Mass. Ave., INDIANAPOLIS, INDIANA.

WHEN ANSWERING THIS ADVERTISEMENT, MENTION THIS JOURNAL.

## One Cent

Invested in a postal card will get my large Catalog of All Root's Goods. Send list of what you want, and get price.

**M. H. HUNT, Bell Branch, Mich.**

WHEN ANSWERING THIS ADVERTISEMENT, MENTION THIS JOURNAL.

**BEE-KEEPERS !** Let me send you my 64-page Catalog for 1897.  
**J. M. Jenkins, Wetumpka, Ala.**

Mention the American Bee Journal.

## PATENT WIRED COMB FOUNDATION

Has No Sag in Brood-Frames

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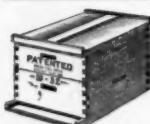
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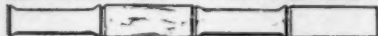
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